DIGI-STEM®

Thermometer and Transmitter Systems

Measure Process Temperatures with Digital Accuracy

Rigid & Remote Sensor Systems

RTD or Thermocouple Output

PALMER Wahl
INSTRUMENTATION GROUP
170 Years of Continued Innovation

www.palmerwahl.com

Digi-Stem®
Thermometers and Transmitters

Digi-Stem Thermometer with Brazed Stem

- **Selectable Stems, Integral or Remote**
- **Large 1 inch LCD Continuous Display**
- **Easy to Read from Over 20 Feet**
- **Battery Operated**
- **Meter Accuracies from ±0.3°F (±0.2°C)**
- **Factory Calibration Lot Traceable to NIST**
- **Direct Replacement for Bimetal, Mercury-in-Glass, Bulb and Capillary Thermometers**
- **Temperature Ranges from 0 to 800°F (-20 to 425°C)**
- **Easy to Install**
- **NEMA-4X Stainless Housing**
- **Hose-Down Proof, Vibration Tolerant**
- **Optional RTD or Thermocouple Output**
- **4-20mA Transmitter with Local Display, Loop Power**

Wahl's Digi-Stem Thermometer and Transmitter Systems provide digital accuracy and reliability for temperature measurements in rugged industrial environments.

Our variety of rigid stems and remote interface connections accommodate most installations.

A Quick Look at Models Most Often Specified			
Model	**DST200**	**DST300**	**DST310**
Range	0 to 199.9°F -20 to 130°C	0 to 300°F	200 to 800°F 100 to 425°F
Display Resolution	0.1°F or °C	0.1°F: 0 to 150°F 1°F: above 150°F	1°F or °C
Meter Accuracy	±0.3°F ±0.2°C	±1.1°F: 0 to 150°F ±2°F: above 150°F	±2°F: 200 to 600°F ±2°C: 100 to 425°C

Approvals		
3-A Sanitary Standard 74-02 Authorization	**Intrinsically Safe FM Approved**	**Housing per NEMA-4X**

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST

PALMER Wahl INSTRUMENTATION GROUP
170 Years of Continued Innovation

Calibration Services Available

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

Digi-Stem®
Thermometers and Transmitters

Remote Sensor Systems

Digi-Stem is offered in a variety of configurations to measure process temperatures remotely located from the meter. Optional remote sensor cables are available with different stem configurations. Stems can be specified for a variety of process connections or interfaces, including different thermowell adapters, penetration probes and immersion probes. See Ordering Guide on pages 5 and 6.

RTD or Thermocouple Output

Direct Connection: Wahl provides Digi-Stems with optional dual-element temperature sensors in the stem for direct connection to recorders and controllers. The primary sensor drives the local display while the dedicated secondary sensor (RTD or Thermocouple) provides access to a 3- or 4-wire RTD circuit or a Thermocouple system interface. The connecting port is 1/2" NPT.

In Situ Calibration: Specify option DSA392M or DSA392HP for in situ calibration of Digi Stem Model DST200 without removal from a process. This instrument has an RTD as the secondary sensor, which allows single-point calibration using Wahl's highly accurate platinum-RTD Heat Prober 392 Meter. This provides the accuracy of a laboratory calibration, and saves time as well as money.

Transmitter Systems

Wahl offers loop-powered transmitter versions of Digi-Stem with continuous, digital, local display. The transmitter is an integral meter and electronics assembly in NEMA-4X housing with a 4-20mA, 2-wire current loop. Model DSX300 has a temperature range of 0 to 300°F (-18 to 150°C), while Model DSX310's range is 200 to 800°F (100 to 425°C). The transmitters incorporate all Digi-Stem family features, including stainless steel construction, large digital display, reliability, and rugged construction.

Digi-Stem with Sanitary Stem

Stainless Steel Stems

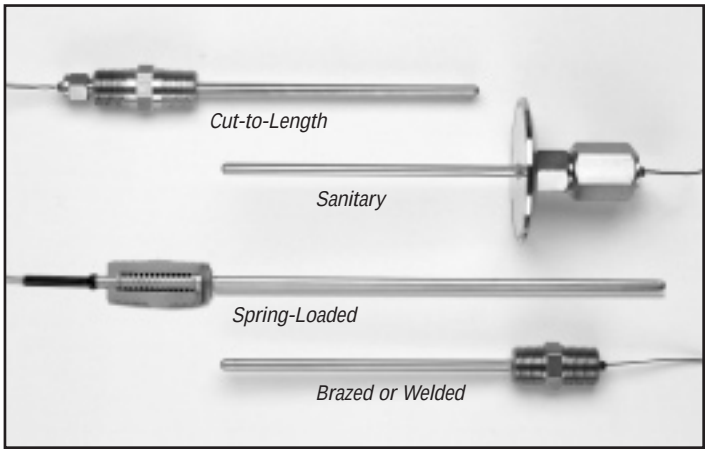
Cut-to-Length: Compression seal; for direct immersion in fluids and for thermowell applications.

Sanitary: Authorized 3-A Sanitary Standard 74-02 for 1.5" to 3.0" diameter tube sizes with tri-clamp fitting for milk, food and pharmaceutical processing.

Spring Loaded: Maintains a positive force against the bottom of thermowells; not for direct immersion in fluids; assembly is not sealed.

Brazed: For use in thermowells.

Welded: Sealed for immersion in fluids; for use in thermowells, sanitary, and high-pressure applications.



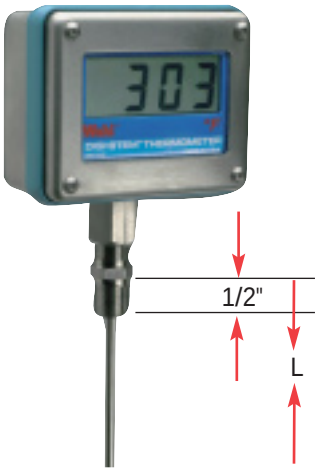
Stainless Steel Stems

Calibration Services Available

Meter Specifications

		Battery Powered Display			Display Transmitters	
Model		**DST200**	**DST300**	**DST310**	**DSX300**	**DSX310**
Range	**Standard °F or °C**	0.0 to 199.9°F -20.0 to 130°C	0.0 to 300°F	200 to 800°F 100 to 425°C	0.0 to 300°F -18.0 to150°C	200 to 800°F 100 to 425°C
	Option	**Option DSA20:** 0.0 to 199.9°C **Option DSA21:** -20.0 to 150°C	**Option DSA 30:** 0.0 to 600°F	**Option DSA 31:** 0 to 800°F or 0 to 425°C	N/A	N/A
Display Resolution		0.1°F or °C	0.1°F : 0.0 to 150°F 1°F: above 150°F	1°F or °C	0.1°F : 0.0 to 150°F 1°: 150°F to 300°F 0.1°C	1°F or °C
Meter Accuracy Display & Loop @ 75°F (±1 LSD included)		±0.3°F ±0.2°C	±1.1°: 0.0 to 150°F ±2°: above 150°F	±2°F: 200 to 600°F ±4°F: elsewhere ±2°C: 100 to 425°C	±1.1°F: 0 to 150°F ±2°F: 150 to 300°F ±0.7°C: -18.0 to 150°C	±2°: 200 to 600°F +4 / -2°: 600 to 800°F ±1°: 100 to 325°C +2°/ -1°: 325 to 425°C
	Option	**Option DSA21:** ±0/0.4°C @ 150°C				
Point Calibration		External	Internal			
Ambient Temp. Rated Accuracy Operating*		20 to 130°F (-7 to 54°C) with Alkaline Batteries 20 to 158°F (-7 to 70°C) with Lithium Battery			20 to 158°F (-7 to 70°C)	
Ambient Temp. Coefficient		0.02 deg/deg from 75°F	0.04 deg/deg from 75°F			
Material		**Meter Case, Fittings, Stems:** 300 Series Stainless Steel **Window and Molding:** Polycarbonate **Gasket:** Silicone, O-Ring Sealed				
Battery Power Battery Life		2 Alkaline** 18 months	1 Lithium 2 years	2 Alkaline** 18 months	N/A	N/A
Loop Power		N/A			12/42 V DC min/max	
Loop Output		N/A			4-20 mA; fixed zero and span	
Housing		Rating NEMA 4-X. Dimensions: 5.3"W x 4.3"H x 2.7"D (13.5 x 10.9 x 6.9 cm); weight: 2 lbs. (1kg)				

*Temperature Rating for Alkaline Batteries: -20 to 130°F ; for Lithium Batteries: -40 to 185°F
** "C" Cell Alkaline Batteries



Stainless Steel Stems

When measuring the probe length for your Digi-Stem Rigid Stem Sensors or some Remote Stem Sensors the measurement includes 1/2" of the threads, depending on the connection. Please contact Wahl Customer Service at 1-800-421-2853 for more information. Also, see Ordering Guide on pages 5 and 6.

Ordering Guide for Meters and Rigid Stem Sensors

Digi-Stem® Meters for Rigid & Remote Sensors

Insert Model Number Code in white boxes at bottom of table to construct Part Number for product desired.

Code	Meter Description
DST200	Meter, 0.0/199.9°F (-20.0/130.0°C), Battery Powered Display
DST300	Meter, 0.0/300°F, (Not available in C), Battery Powered Display
DST310	Meter, 200/800°F (100/425°C), Battery Powered Display
DSX300	Meter, 0.0/300°F (-18.0/150.0°C), Loop Powered, 4-20mA, Display Transmitter
DSX310	Meter, 200/800°F (100/425°C), Loop Powered, 4-20mA, Display Transmitter

Code	Scale
F or C	Fahrenheit or Celsius

Stop here if ordering Meter only. To order Meter with Rigid Stem Sensor continue below.

To order Meter with Remote Stem Sensor see page 6, and order as a separate line item.

Digi-Stem® Rigid Stem Sensors

Start here → if ordering Replacement Probe only

Code	Rigid Probe *(This Code is not required if ordering complete unit)*
DSTP	Grounded Stem (for DST Display Meters)
DSXP	Ungrounded Stem (for DSX Display Transmitters)

Continue here → if ordering complete unit

Code	Process Connections
12	1/2" NPT Fitting (Standard)
13	3/4" NPT Adapter
20	1-1/4" x 18 NEF2 Thermowell Adapter
30	1-1/2" Diameter 3-A Sanitary Std. 74-02, Welded (Stem Material Codes 2 or 3 only)
31	2" Diameter 3-A Sanitary Std. 74-02, Welded (Stem Material Codes 2 or 3 only)
32	2-1/2" Diameter 3-A Sanitary Std. 74-02, Welded (Stem Material Codes 2 or 3 only)
33	3" Diameter 3-A Sanitary Std. 74-02, Welded (Stem Material Codes 2 or 3 only)
50	Union Thermowell Fitting, 1-1/4 "x 18 NEF2

Code	Stem Type
1	Cut to Length (User), 12" Std (Shipped in 6" increments thereafter)
2	Cut to Length (Factory)
3	Brazed
4	Welded (included with all 3A Connections)
5	Spring Loaded (not available with Connection Code 50)

Code	Stem Material
1	304SS, Temp Rating 400°F (Standard)
2	316SS, Temp Rating 400°F
3	316SS, Temp Rating 900°F
4	304SS, Temp Rating 900°F

Code	Stem Tip Diameter
2	1/4" Diameter (Standard)
3	3/8" Diameter with Stem Adapter
4	1/2" Diameter with Stem Adapter
5	7/16" Diameter with Stem Adapter, Tapered
6	7/16" Diameter with Stem Adapter, not Tapered

Insert Model Number Code in white boxes below to construct Part Number for product desired.

Code	Stem Lengths [1]
01-12	1" to 12" (12" Std)(Specify exact length desired)
13-99	13" to 99" add per inches over 12" (Specify)
	over 99" in length (Specify exact length desired)

[1] Fractional Lengths available: A =1/4", B =1/2", C = 3/4" Example: 08C = 8-3/4"

Calibration Services Available

Ordering Guide for Remote Stem Sensors

Digi-Stem Remote Stem Sensors

Insert Model Number Code in white boxes below to construct Part Number for product desired.

Code	Remote Probe — *Start here when ordering a Remote Stem Sensor separately or as part of a complete unit with a Meter.*
DSTP	Grounded Stem (for DST Display Meters)
DSXP	Ungrounded Stem (for DSX Display Transmitters)

Code	Remote Cable Type (and/or Remote Probe)
40	PVC
41	Teflon Covered
42	Armored
44	Coiled (TPE Insulated only)

Code	Remote Cable Lengths [1]
01-06	Codes 40, 41, 42 (above) only, Code 06 = 6 foot length Std, (Specify exact length desired 01 = 1 ft, etc)
07-99	7 to 99 feet - PVC or Teflon, add per foot over 6' (Specify exact length desired)
07-99	7 to 99 feet - Armored, add per foot over 6' (Specify exact length desired)
01 02-04	Code 44 (above) - Coiled only, 5:1 Expansion Ratio, Code 01 = 1 Foot (Standard) Code 02 = 2 ft, 03 = 3ft, 04 = 4ft, (Add per ft over 1 ft) (Specify exact length desired)

Code	Remote Stem Material
1	304SS, Temperature Rating 400°F (Standard)
2	316SS, Temperature Rating 400°F
3	316SS, Temperature Rating 900°F
4	304SS, Temperature Rating 900°F

Code	Remote Stem Tip Diameter/Termination
2	1/4" Diameter (Standard)
3	3/8" Diameter with Stem Adapter
4	1/2" Diameter with Stem Adapter
5	7/16" Diameter with Stem Adapter, Tapered
6	7/16" Diameter with Stem Adapter, not Tapered
8	TC817 Style Piercing Probe w Handle **(Note: if ordering this Tip, Part Number ends here)**

Code	Remote Stem Connections/Fittings (insert 0 if not applicable)
1	1/2" NPT Compression
2	1/2" NPT Compression w/ 3/4" NPT Adapter.
3	1-1/4X18 NEF2 Thermowell Adapter
5	Union Thermowell Fitting, 1-1/4X18 NEF2
6A	1-1/2" Diameter 3-A Sanitary Std 74-02, Welded **(Remote Stem Material Codes 2 or 3 only)**
6B	2" Diameter 3-A Sanitary Std 74-02, Welded **(Remote Stem Material Codes 2 or 3 only)**
6C	2-1/2" Diameter 3-A Sanitary Std 74-02, Welded **(Remote Stem Material Codes 2 or 3 only)**
6D	3" Diameter 3-A Sanitary Std 74-02, Welded **(Remote Stem Material Codes 2 or 3 only)**
7	1/2" NPT - Brazed
8	1/2" NPT - Welded (Included w/ all 3A Connections)
9	1/2" NPT - Spring Loaded (Not Avail. w/Conn Code 50)

Insert Model Number Code in white boxes below to construct Part Number for product desired.

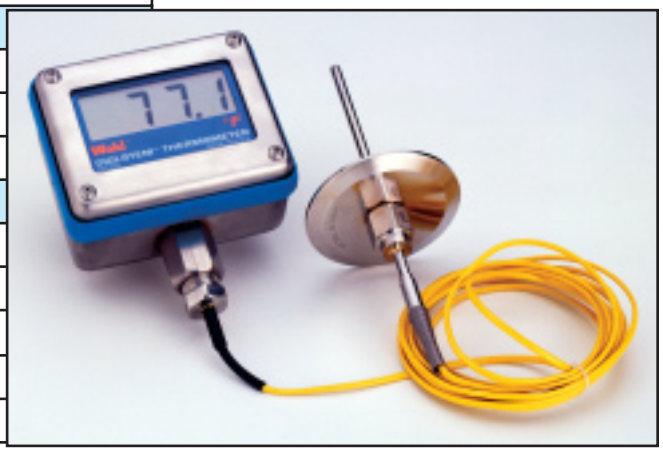
Code	Remote Stem Lengths [2]
01-12	1" to 12" (12" Standard)(Specify exact length desired)
13-99	13" to 99" (add per inches over 12")(Specify length)
	over 99" in length (Specify exact length desired)

[1] 01= 1 foot, 02 =2 feet, 03 = 3 feet, etc. [2] Fractional Lengths available: A =1/4", B =1/2", C = 3/4" Example: 08C = 8-3/4"

Options and Accessories

Additional Options for Digi-Stem Thermometers	
	Order as separate line items from Meter Model Numbers
Code	**Range Expansion Options**
D1284-2	Range Ext, DST310/DSA31, -30/125°C
D1284-3	Range Ext, DST200F, -50/200°F
D1284-4	Range Ext, DST200F, -50/1450°F *
DSA20	Range Ext. DST200C, 0/199.9°C
DSA21	Range Ext. DST200C, -20/150°C
DSA30	Range Ext. DST300F, 0.0/600°F *
DSA31	Range Ext. DST310F/C, 0/800°F or 0/425°C *
* Stem Material Codes 3 & 4 only	
Code	**Secondary Element Options**
DSA204-3	Secondary Element Direct RTD Access 3-wire
DSA204-4	Secondary Element Direct RTD Access 4-wire
DSA205J	Secondary Element Type J Thermocouple
DSA205K	Secondary Element Type K Thermocouple
DSA392HP	Secondary Element Stem/Wahl 392HP Meter
DSA392M	Secondary Element Stem/Wahl 392 Meter
Code	**Cables**
DSAC392HP	Interface Cable, Wahl 392HP Meter
DSAC392M	Interface Cable, Wahl 392 Meter
Code	**Batteries**
DSA3060	Lithium Battery
DSA3061	Alkaline Battery, Type C, Set of 2
Code	**Certifications**
DSAFMT	DST Intrinsically Safe Ratings
DSAFMX	DSX Intrinsically Safe Ratings
DSTNIST	NIST Calibration Test Report
Code	**Misc. Options**
DSA3020	Tube Cutter 1/8" x 1-1/8"
DSA3030	Wall Mount Bracket
DSA3121	High Humidity/Moisture Resistant Conformal Coating
DSA3130	Thermowell Adapter Kit
13146	90 Degree Elbow

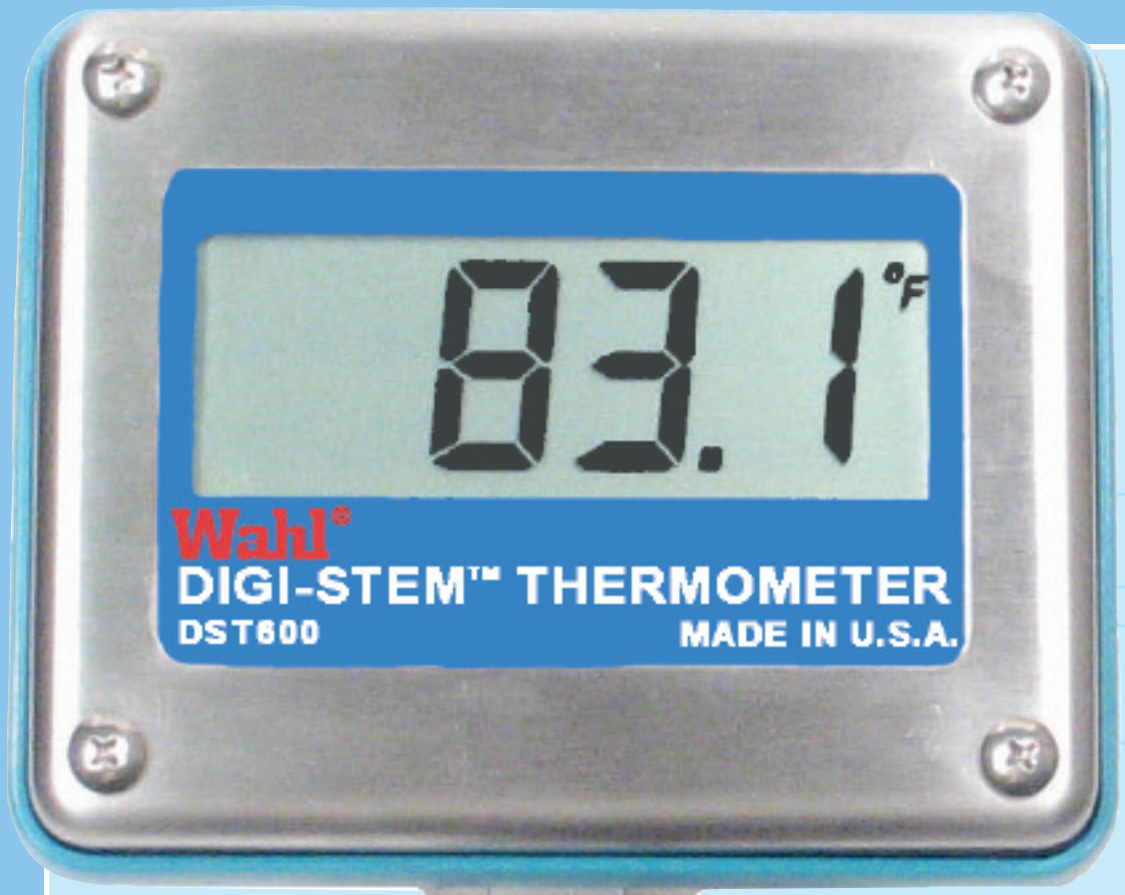
Digi-Stem Remote Transmitter with DSA3030 Wall Bracket



Digi-Stem Meter DST300 with Wahl Heat Prober® Sanitary Remote Model #DSTP4010226C04.

MADE IN THE USA · TWO YEAR 2 WARRANTY · A3 · TRACEABLE TO NIST · FM APPROVED · PMO

Calibration Services Available



NEW!

Actual Size

- Exclusive Patent-Pending Wahl® Continuous Self-Checking Technology
- Trustworthy Alternative to Mercury-in-Glass
- Designed in compliance with FDA's Proposed Rule Change for 21 CFR Part 113

Wahl® DST600

Digi-Stem® Digital RTD Reference Thermometer for Retorts & Temperature Critical Applications

Processing's Breakthrough Product of 2008

www.industrialproductdemos.com/wahl_dst600

PALMER Wahl
INSTRUMENTATION GROUP

173 Years of Continued Innovation
ISO 9001:2000 CERTIFIED

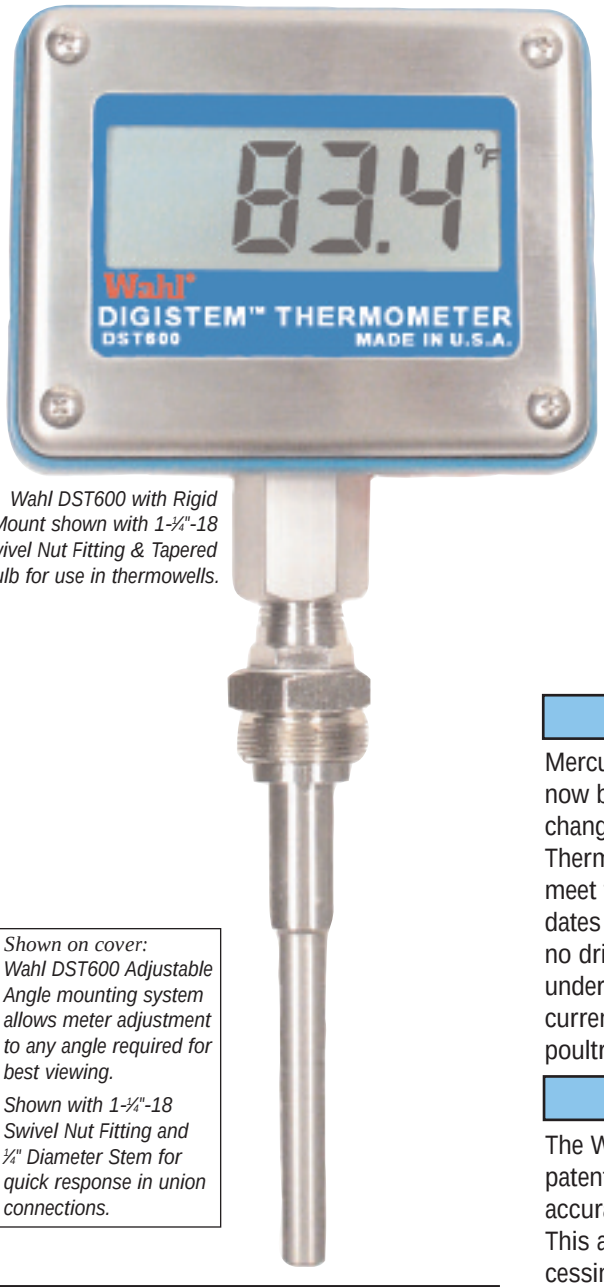
www.palmerwahl.com

PW1201

01/09

Wahl® DST600

Key Features and Benefits



Wahl DST600 with Rigid Mount shown with 1-¼"-18 Swivel Nut Fitting & Tapered Bulb for use in thermowells.

Shown on cover: Wahl DST600 Adjustable Angle mounting system allows meter adjustment to any angle required for best viewing.

Shown with 1-¼"-18 Swivel Nut Fitting and ¼" Diameter Stem for quick response in union connections.

The Wahl® DST600 is the new standard against which all other temperature indicating devices are compared.

- **Trustworthy Alternative to Mercury-in-Glass**
- **Exclusive Patent-Pending Wahl® Continuous Self-Checking Technology to ensure accuracy and reliability**
- **Exclusive Adjustable Meter Update Rate**
- **User Selectable °F or °C**
- **Ambient operation at -40°F to 158°F**
- **Unique Probe ID Feature prevents use of unauthorized probes**
- **Long Battery Life - 2 years nominal**
- **Adjustable Angle, Rigid, or Remote configurations available**
- **Programmable "R0" for "matching" sensor to meter**
- **User friendly Single Point Software Calibration**
- **Tamper Resistant - all adjustments require software**
- **Exclusive Quick Disconnect Connector option on Remote Cables**
- **NIST Traceable Certificate of Calibration included**

Innovative New Technology!

Mercury-in-Glass (MIG) thermometers, the only standard for years, can now be replaced with other technologies under the FDA proposed rule change. Wahl's **NEW!** **DST600** is a patent-pending, dependable, digital RTD Thermometer System which offers new technology designed specifically to meet the FDA Proposed Rule change for 21 CFR Part 113. This rule mandates that a temperature indicating device provides permanent accuracy, no drift over time, and reliability for processors of low-acid canned foods under actual plant operating conditions. The Wahl DST600 also meets the current USDA 9CFR318.300 for canned meat and 9CFR381.300 for canned poultry products.

Continuous Self Checking Accuracy

The Wahl DST600 meets and exceeds the FDA rules by incorporating patent-pending self-checking technology which continuously verifies the accuracy of the electronics, and indicates any out-of-tolerance conditions. This assures that its accuracy and ability to function properly during processing are not compromised. Test temperatures are set at 180°F (82.2°C) and 250°F (121.1°C). Out-of-tolerance conditions will be displayed as an error, and immediately indicate to the operator if accuracy is not maintained, preventing under- or over-processing of product. The Wahl DST600 is the last defense against potential health hazards!

Drop-in Direct MIG Replacement

The Wahl DST600 offers the highest precision temperature measurement technology with many unique features - making it the best choice for your processing needs. It has a field replaceable battery with a 2 year life, and provides a trustworthy alternative to MIG style thermometers with drop-in direct replacement. It is available with MIG standard tapered bulb chambers, or in a variety of probe configurations. The Wahl DST600 also features a 1" high LCD display - readable from 30 feet away!

Applications

- **Retorts - for Low-Acid Canned Foods**
- **Dairy Processors** • **USDA**
- **Pharmaceutical Companies**
- **All Temperature Critical Applications**

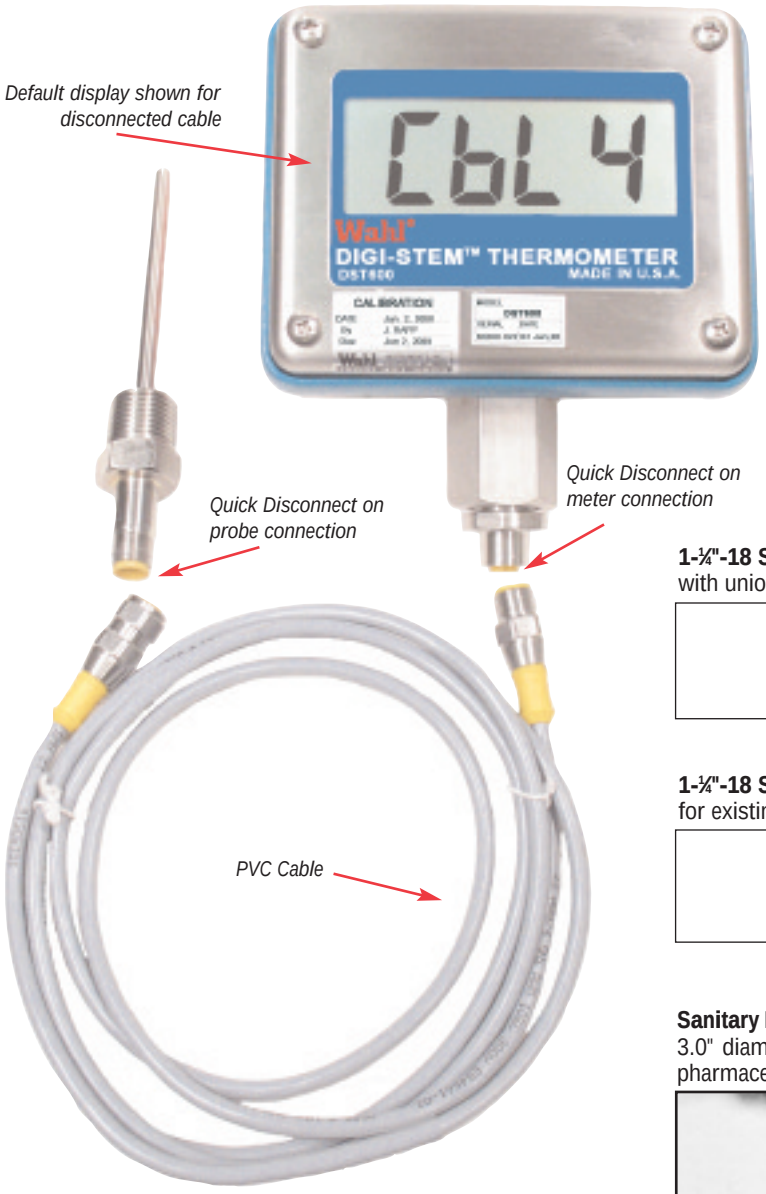
MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · 3A · CE

Complete Calibration Services Available

PALMER Wahl INSTRUMENTATION GROUP
173 Years of Continued Innovation
ISO9001:2000 CERTIFIED

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

Probe Selection and Measurement

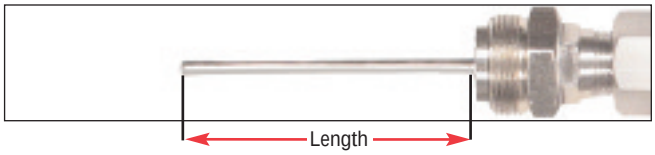


Optional Quick Disconnect for Calibration Convenience

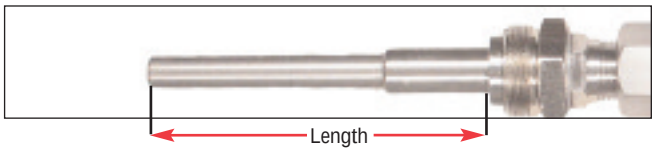
Optional Quick Disconnect for both probe and meter connections offers convenient calibration for the user. This industry leading, and time saving capability allows the probe and meter to be removed and taken to the calibration lab and calibrated as a system - *without removing the permanently installed cable*.

Custom Built Probes available.
Call Customer Service for information.

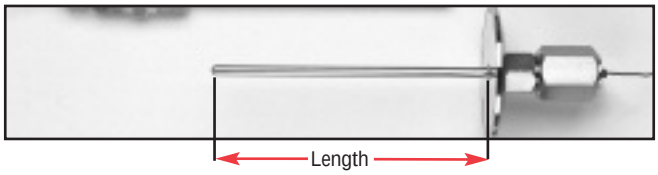
1-¼"-18 Swivel Nut Fitting with 1/4" Diameter Stem - for use with union connections (no thermowells) for quick response.



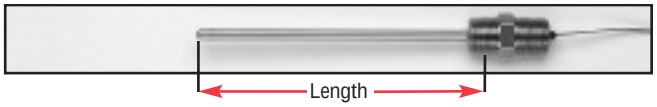
1-¼"-18 Swivel Nut Fitting & Tapered Bulb - Direct replacement for existing MIG's.



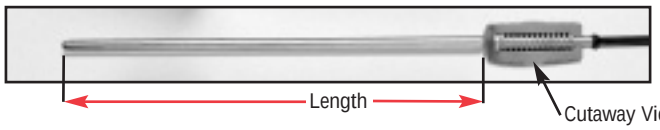
Sanitary Probe: Authorized 3-A Sanitary Standard 74-03 for 1.5" to 3.0" diameter tube sizes with tri-clamp fitting for milk, food and pharmaceutical processing.



***Brazed Probe:** For use in thermowells, or low pressure applications.
***Welded Probe:** Sealed for immersion in fluids; for use in thermowells, sanitary, and high-pressure applications.



Spring Loaded Probe: Maintains a positive force against the bottom of thermowells; not for direct immersion in fluids; assembly is not sealed. Allows approximately 1 inch of travel.



Why Calibration is important for your Instruments

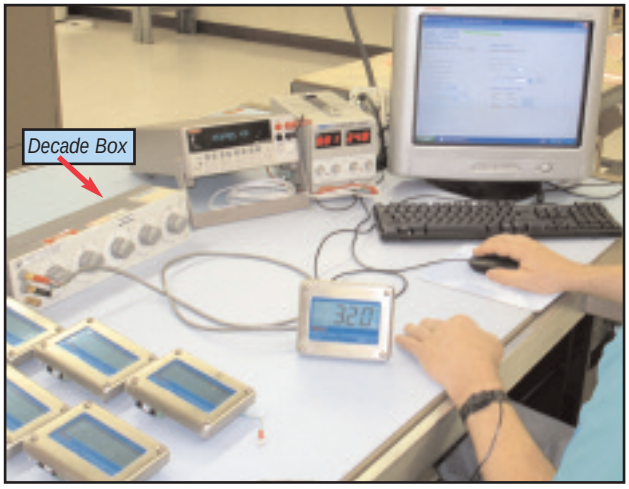
- **Product Safety and compliance with FDA Standards.**
- **Increase customer satisfaction with consistent products.**
- **Ensure traceability throughout entire manufacturing process by maintaining accuracy records.**
- **Register your product for our Calibration eMinder Service to be reminded when calibration is due. Go to: www.palmerwahl.com/register**

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · 3-A · CE

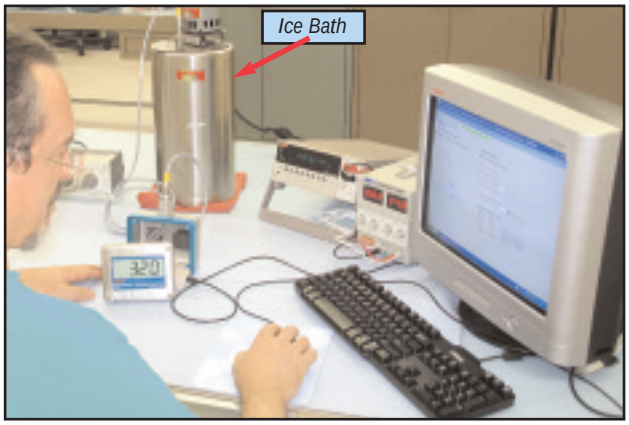
Complete Calibration Services Available

***Note:** some connections include 1/2" of threads when measuring probe length. Contact Customer Service for information.

Calibration and Programming Software and Accessories



Meter Calibration of a Digi-Stem Meter utilizing a decade box and USB to Computer Interface Box.



System Calibration of a Remote Digi-Stem utilizing an ice bath and USB to Computer Interface Box

Wahl **DSTPROG** and **DSTCAL Software Kits** are user friendly and include on-screen prompts for guiding the user through their operation. Both Kits require Windows XP to operate, and include a USB cable, USB to Computer Interface Box, and Digi-Stem Serial Interface Cable in order to connect the Wahl DST600 to a PC.

Wahl USB to Computer Interface Box, USB Cable, and Digi-Stem Serial Interface Cable

Probe ID and Probe RØ

Probe ID - The unique Probe ID feature verifies that the authorized probe is connected to the meter. If an unauthorized probe is connected, the meter will display "Prb", indicating the need to perform the probe authorization and probe calibration functions. Probe ID is available on Adjustable Angle, Rigid, and Remote probes up to 30-meter lengths.

NO OTHER SYSTEM HAS THIS SAFETY FEATURE!

Probe R0 - The Wahl DST600 includes an exclusive compensation feature utilizing a programmable R0 calibration coefficient for increased accuracy. This allows the meter and probe to be "matched" to each other, and along with the Probe ID feature, guarantees an accurate and secure system.

DST600 Programming Software

DSTPROG Programming Software Kit - This software allows the customer to configure the following parameters:

- **Sample/Display Rate** - Factory default at 1/second. Adjustable from .25 seconds to 10 seconds in .25 second intervals. Slower update rates extend battery life.
- **Probe R0** - Compensation feature which allows calibration of meter to be "matched" to probe.
- **Probe Authorization** - Allows user to change probes and authorize a new probe with the existing meter.

DST600 Calibration Software

DSTCAL Calibration Software Kit - This exclusive software allows setting of the same configuration parameters as DSTPROG, but also allows the following calibrations:

- **Meter Calibration** - uses an ohmmeter to calibrate the resistance measurement electronics by connecting to known fixed resistances.
- **System Calibration** - used to calibrate a sensor to a meter using a standard ice bath.

Software Accessories

DST600 Fixed Probe Calibration Cable Assembly - 13500-03 Extends the probe leads when performing system calibrations on fixed probe systems. Allows the meter to be conveniently placed on the benchtop, while the probe is installed in an ice bath.

DST600 Interconnect Calibration Cable - When probe wiring is difficult to remove, simply disconnect the probe and meter from the cable, and use the 2 meter interconnect cable for performing lab calibration. Determine appropriate model number below, based on length of installed cable.

12370-002 - 2 meter length, 6 conductor cable for use in calibration when installed remote cable cannot be easily removed.

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · A3 · CE

Complete Calibration Services Available

PALMER Wahl INSTRUMENTATION GROUP
173 Years of Continued Innovation
ISO9001:2000 CERTIFIED

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

Meter Specifications and Accessories

Specifications	
Meter Range	-50° to 500°F (-45.5° to 260°C)
Scale	User Selectable for °F or °C
System Accuracy	Greater of ± 0.3°F/.2°C or ± 0.1% of reading, over 1-year period (@ Tamb = 23°C) ± 5°C
Display	1.0" 4-digit LCD display with icons for °F, °C and Low Battery, Readable up to 30 ft.
Display Resolution	0.1°F/C
Sample/Display Rate	1/second standard, adjustable in .25 second intervals from .25 to 10 seconds
Ambient Operating Temperature Range	-40° to 158°F (-40° to 70°C)
Ambient Temperature Coefficient	Maximum of 0.003°/°C over Ambient Operating Temperature Range from 23°C ± 5°C
Humidity	10% to 100% RH non-condensing
Battery	One Lithium Thionyl Chloride "C" Battery, Field Replaceable
Battery Life	2 years nominal at 1 second update interval
Enclosure	Stainless Steel and Polycarbonate (NEMA 4X)
Enclosure Dimensions/Weight	Dimensions: 5.3" W x 4.3" H x 2.7" D (13.5 x 10.9 x 6.9 cm). Weight: 2 lbs. (1kg)
Sensor/Probe	• Sensor - 4-wire RTD, R0 = 100Ω, Alpha = .00385 Ω/Ω/°C with serial ID chip • 304 or 316L Stainless Steel Probe construction • Adjustable Angle Stem Probes • Rigid Stem Probes • Remote Probes with rugged IP68 connection system. • Sanitary Fittings in compliance with 3A Sanitary Standard 74-03
Sensor Cables	All Remote Cables are shielded, 6 conductor < 30 meters, 4 conductor > 30 meters.
NIST Calibration	Includes NIST Traceable Certificate of Calibration at 3 points: 180°F, 220°F, 250°F (For User Specified Fixed Points please contact Customer Service)
Optional Programming and Calibration Software	DSTPROG Programming Software DSTCAL Calibration Software

Specifications subject to change

DST600 Software and Accessories	
DSTCAL	DST600 Calibration Software Kit
DSTPROG	DST600 Programming Software Kit
12370-002	DST600 Interconnect Calibration Cable - 6 Conductor
13500-03	DST600 Fixed Probe Calibration Assembly
DST600 Meter Accessories and NIST Traceable Certificate of Calibration	
DSA3030	Wall Mount Bracket (for Remote Mount units)
DSA3031	Wall Mount Bracket (for Remote Mount units) with Grounding Lug
DSA3060	Spare Lithium Thionyl Chloride "C" Battery
DST6NIST	NIST Traceable Certificate of Calibration - Standard Set Test Points (Subsequent NIST)
DST6NIST-1	NIST Traceable Certificate of Calibration - User Specified Test Points
13146	90 Degree Elbow for Fixed units, Specify "B" Back Angle, "L" Left Angle, "R" Right Angle

DSA3030 Wall Mount Bracket

13146 90° Elbow

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · 3A · CE

Complete Calibration Services Available

WAHL DST600 METER & PROBE ORDERING GUIDE

Code	Step 1 - order DST600 RTD Meter
DST600	Digi-Stem RTD Meter, LCD, Battery Operated, (NIST Traceable Certificate of Calibration and Battery included) -50° to 500°F (-45.5° to 260°C)
Code	Step 2 - order DST600 RTD Probe by inserting correct codes for desired probe in white boxes at bottom of form.
DST6	DST600 RTD Probe

Code	Process Connections
01	1/2" NPT Fitting
02	3/4" NPT Fitting
03	1-1/2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
04	2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
05	2-1/2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
06	3" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
07	1-1/4" x 18 NEF2 Swivel Nut Fitting

Code	Mounting Style
A	Adjustable Angle (Pictured on cover, not available on Remote Stems)
B	Rigid (Pictured on pg 2, Bottom Connected)
C	Remote (Pictured on pg 3, Mounting Bracket not included - see Options pg 5)

Code	Stem Type
0	Not Applicable
1	Brazed
2	Welded
3	Spring Loaded, Process Connection Codes "01" & "02" only. Stem Tip Diameter Code "1" only. Allows approx 1.0" Spring Travel.

Code	Stem Material/Construction
1	304 SS, Temperature Rating 450°F
2	316L SS, Temperature Rating 450°F

Code	Stem Diameter
1	1/4" Diameter
2	3/8" Diameter
3	5/8" Diameter Stem, 7/16" Tapered Bulb (Process Connection "07" only.) (Stem Type Code "0" only.) (Stem Lengths: 3.5", 6", 8", 9", 12" only.)

Code	Stem Lengths (Specify exact length desired)
01X-72X	1" to 72" Length in inches - 01X = 1 inch, 02X = 2 inch, 03X = 3 inch, etc. For fractional lengths substitute X with: A = 1/4", B = 1/2", C = 3/4", Example: 04A = 4-1/4".

Stop here if ordering Adjustable Angle or Rigid Probe.

If ordering a Remote Probe continue with options below.

Code	Meter Connection - where cable attaches to Digi-Stem Meter
1	Fixed (Cable attached to meter via 1/2" NPT fitting, must be disconnected from PCB to separate from meter.)
2	Quick Disconnect (Cable attached via IP68 rated TURCK plug & receptacle)

Code	Cable Type
1	PVC, Temperature Rating 105°C

Code	Cable Length
002	2 meters (6.5 feet)
004	4 meters (13.1 feet)
006	6 meters (19.7 feet)
008	8 meters (26.3 feet)
010	10 meters (32.8 feet)
011-200	011 = 11 meters, etc. (Specify exact length desired up to 200 meters)

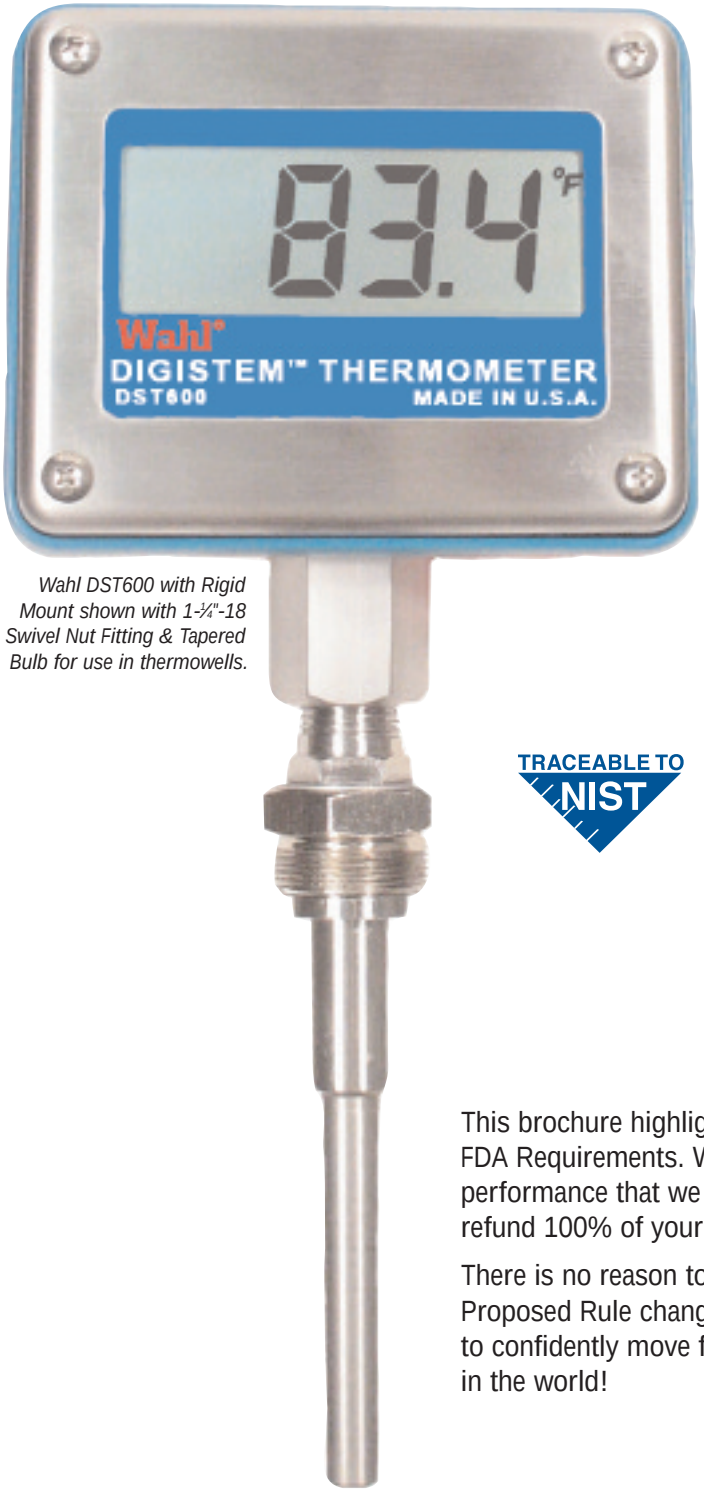
Code	Probe Connection - point where cable attaches to probe fitting
1	Fixed (Cable permanently attached to probes process fitting)
2	Quick Disconnect (Cable attached via IP68 rated TURCK plug & receptacle)

Insert Model Number Code in white boxes below to construct Part Number for specific probe desired

Adjustable Angle and Rigid Probe Ordering Information						Remote Probe Ordering Information				
DST6										

Step 3 - order Software and Meter Accessories.
For additional help, call Customer Service, see Price List/Order Form.

THE WAHL DST600 SOLUTION!



Wahl DST600 with Rigid Mount shown with 1-¼"-18 Swivel Nut Fitting & Tapered Bulb for use in thermowells.

TRACEABLE TO NIST

The Wahl DST600 Solution to the FDA Proposed Rule Change to 21CFR Part 113

Investing in the NEW DST600 Digital RTD Thermometer puts you on the road towards meeting and exceeding the Proposed Rule changes from the FDA.

- The Wahl DST600 has the most advanced patent pending RTD technology available of any thermometer on the market today that guarantees accuracy and reliability during processing.
- It includes FREE NIST certificates to establish your documentation requirements, and one additional FREE NIST Certificate - if returned to Palmer Wahl within 1 year.
- We provide a "before and after report" so we can monitor its performance and determine if any changes in the calibration interval are needed. Your recertified DST600 will be returned to you with the documentation needed for the FDA.
- If you certify your product with Palmer Wahl every year we will maintain all certification records for the life of each DST600 you own.
- Enrolling in our eMinder service allows us to contact you when your thermometer is due for recertification. Your first recertification cost is included with the purchase of the DST600.

This brochure highlights how the Wahl DST600 meets and exceeds the FDA Requirements. We are so confident in the DST600 accuracy and performance that we guarantee its performance for one year - or we will refund 100% of your money back.

There is no reason to delay implementing the best solution to the Proposed Rule change. Palmer Wahl makes it easy and risk free for you to confidently move forward installing the most advanced thermometer in the world!

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · 3A · CE

www.palmerwahl.com
1-800-421-2853

PALMER Wahl
INSTRUMENTATION GROUP

172 Years of Continued Innovation
ISO 9001:2000 CERTIFIED

10/08

Wahl® DST600 Solution

FDA Proposed Rule 21CFR Part 113			Wahl DST600 Solution
Items 1 and 2 are from the Preamble.			
1	Page 11991	...**evidence** that if the device does not maintain its accuracy, it would become immediately known by the operator...	Patent Pending Self-Checking circuitry checks meter accuracy every 8 seconds. Display indicates ""err"" if accuracy check fails. Resets automatically when corrected. Additional internal checks are continuously performed for detection of low battery, over/under temp, open/shorted wires, etc. Display indicates warning of a fault. Only authorized probes can be used, thus assuring accuracy. If authorized probe is not used, unit will display error code.
2	Page 11991	As with mercury-in-glass thermometers, manufacturers who use alternative temperature-indicating devices must conduct appropriate **tests** and implement **procedures** to ensure that the device is accurate **during processing** and does not result in underprocessed foods.	Wahl recommends **side-by-side testing with a NIST Certified Palmer mercury-in-glass thermometer** for initial evaluation, or to establish **progressive recalibration periods (3, 6, 12 months) for the first year of operation. Records** of each test should be maintained.
The following items are from the proposed rule.			
3	113.40 (1)	Temperature-indicating devices shall be **tested for accuracy** against an accurate calibrated reference device by appropriate standard procedures, upon installation and at least once a year thereafter, or more frequently if necessary, to ensure accuracy during processing.	Wahl delivers all DST600's with **NIST traceable certification** including test data. Wahl also offers our annual "eMinder" service to remind you when it is time to return your thermometer for an independent recertification; and includes **one free additional NIST certification** anytime in the first year, to aid in your determination of the instruments performance and the calibration interval. The processor is responsible for generation of appropriate standard procedures.
4	113.40 (i)	The design of the temperature-indicating device shall ensure that the accuracy of the device is **not affected by electromagnetic interference** and environmental conditions.	The DST600 is **CE approved** to EN61326: 2006 for Immunity to Electromagnetic Interference, Electrostatic Discharge and Radiated Emissions.
4a		**Humidity and moisture**	**NEMA-4X** enclosure and **conformal coating** on PCB eliminate effects of humidity.

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · A3 · CE

PALMER Wahl INSTRUMENTATION GROUP

172 Years of Continued Innovation
ISO9001:2000 CERTIFIED

Complete Calibration Services Available

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

FDA Proposed Rule 21CFR Part 113			Wahl DST600 Solution
Items 1 and 2 are from the Preamble.			
4b		**Ambient Temperature variations**	Ambient Temperature coefficient of **no greater than .003°/°**. This equates to no more than .03° change in reading for a 10° ambient temperature change.
4c		**Vibration**	Tested in accordance with **MIL STD 202G** Method 201A extended to 60Hz vibration: 10 to 60 Hz.
4d		Each temperature-indicating device and reference device shall have a **tag, seal, or other means of identity.**	DST600's are **clearly marked** with unique serial numbers visible from the front panel. Serial numbers are also **electronically stored** in internal memory and cannot be tampered with by the user. Custom user identification numbers may be added by user.
5	113.40 (ii)	**Written documentation** of the accuracy of the temperature-indicating device and the reference device **shall be established and maintained**.	Processor is responsible for establishment and maintenance of documents. **All NIST traceable certifications performed by Wahl are provided in writing** and include test data showing "as received" analysis and "as returned" accuracy of the instrument. **Copies** of these certifications are **maintained in our facility for the life of the instrument** if you have Palmer Wahl certify your DST600 every year.
6	113.40 (A)	**Documentation** of the accuracy of the temperature-indicating device shall include a reference to the tag, seal, or other means of identity used by the processor to identify the temperature-indicating device, the name of the manufacturer of the temperature-indicating device, the identity of the reference device used for the accuracy test and of equipment and procedures used to adjust or calibrate the temperature-indicating device, the date and results of each accuracy test, the name of the person or facility that performed the accuracy test and adjusted or calibrated the temperature-indicating device, and the date of the next scheduled accuracy test.	Wahl's NIST traceable certificate includes all of the requirements of this paragraph. **Wahl recommends you return product to Palmer Wahl for re-calibration**. If processors perform their own testing, compliance to this paragraph is required. Wahl's calibration software is simple, fast and easy to use.

MADE IN THE USA · TWO YEAR 2 WARRANTY · TRACEABLE TO NIST · A3 · CE

Complete Calibration Services Available

Wahl® DST600 Solution

FDA Proposed Rule 21CFR Part 113			Wahl DST600 Solution
Items 1 and 2 are from the Preamble.			
7	113.40 (iv)	A temperature-indicating device shall be **easily readable to 1°F (0.5°C)**.	**DST600 has 0.1°F/C resolution**.
Additional info:			
8		**NIST Certification Test Reports**	**Wahl includes a 3 point NIST traceable Certificate of Calibration**. A calibration tag is placed on the face of the case indicating date calibrated, date due, calibrated by, and test report #. Calibration cycle is initially set at 1-year, but may be modified to reflect processors specification. **A second calibration within 1 year from date of purchase is included**.
9		**Sanitary probes**	**All Wahl sanitary probes are 3A Compliant**
10		**Proposed Rule Compliance:**	Palmer Wahl is confident our product will meet the final rule. We are using the **most advanced RTD technology in temperature measurement today,** and have enhanced it further with **self-checking capabilities to ensure accuracy and reliability**. The DST600 uses a highly stable platinum thin film sensor with long term stability in the order of < 0.02°C (0.036°F)
11		The FDA wants alternative devices that will function accurately and reliably.	**Palmer Wahl Guarantee. Investing in the DST600 is risk free because it is guaranteed to function accurately and reliably as evidenced by its patent pending self checking circuitry. If the Wahl DST600 fails to maintain its accuracy and reliability during the first year of ownership, it can be returned to Palmer Wahl for a 100% refund.**

Wahl DST600 Adjustable Angle mounting system allows meter adjustment to any angle required for best viewing.

Shown with 1-¼"-18 Swivel Nut Fitting and ¼" Diameter Stem for quick response in union connections.

Wahl DST600 shown with default display for disconnected cable, and Quick Disconnect on probe and meter connections.

MADE IN THE USA

TWO YEAR 2 WARRANTY

TRACEABLE TO NIST

3A

CE

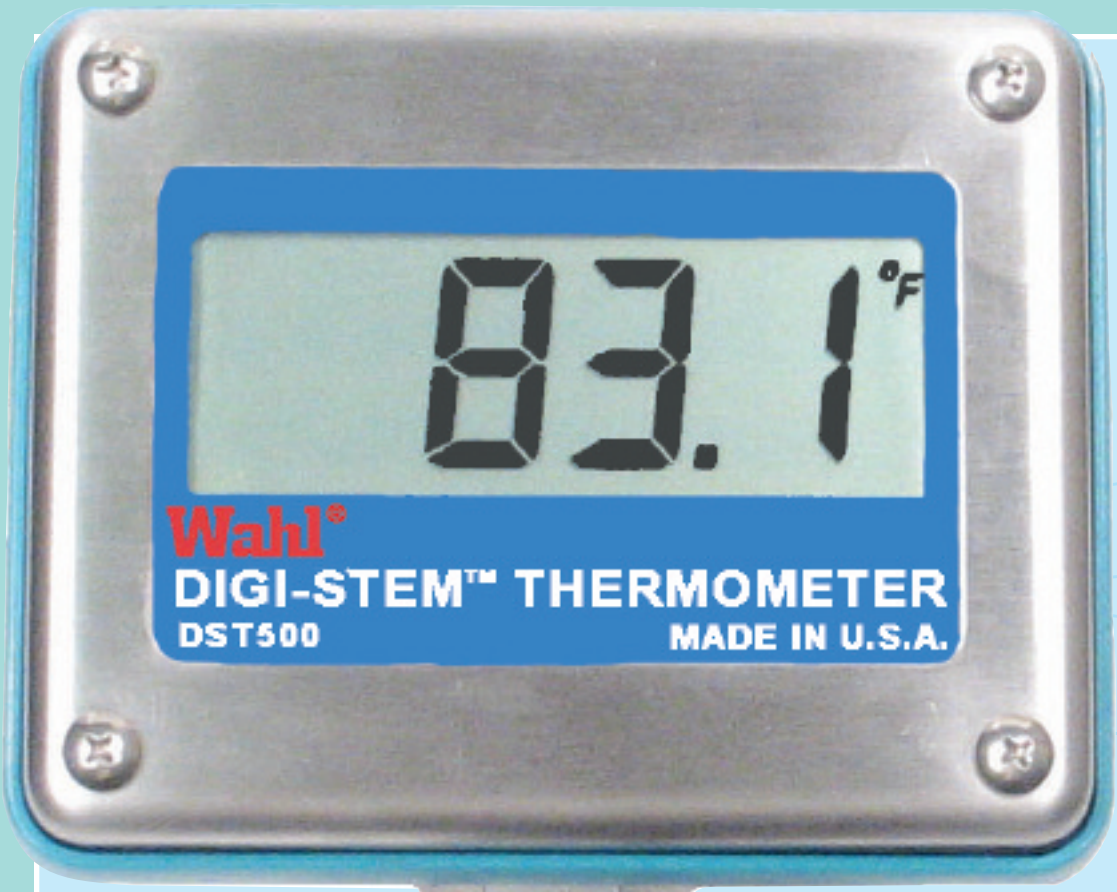
Complete Calibration Services Available

PALMER Wahl INSTRUMENTATION GROUP

172 Years of Continued Innovation

ISO9001:2000 CERTIFIED

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com



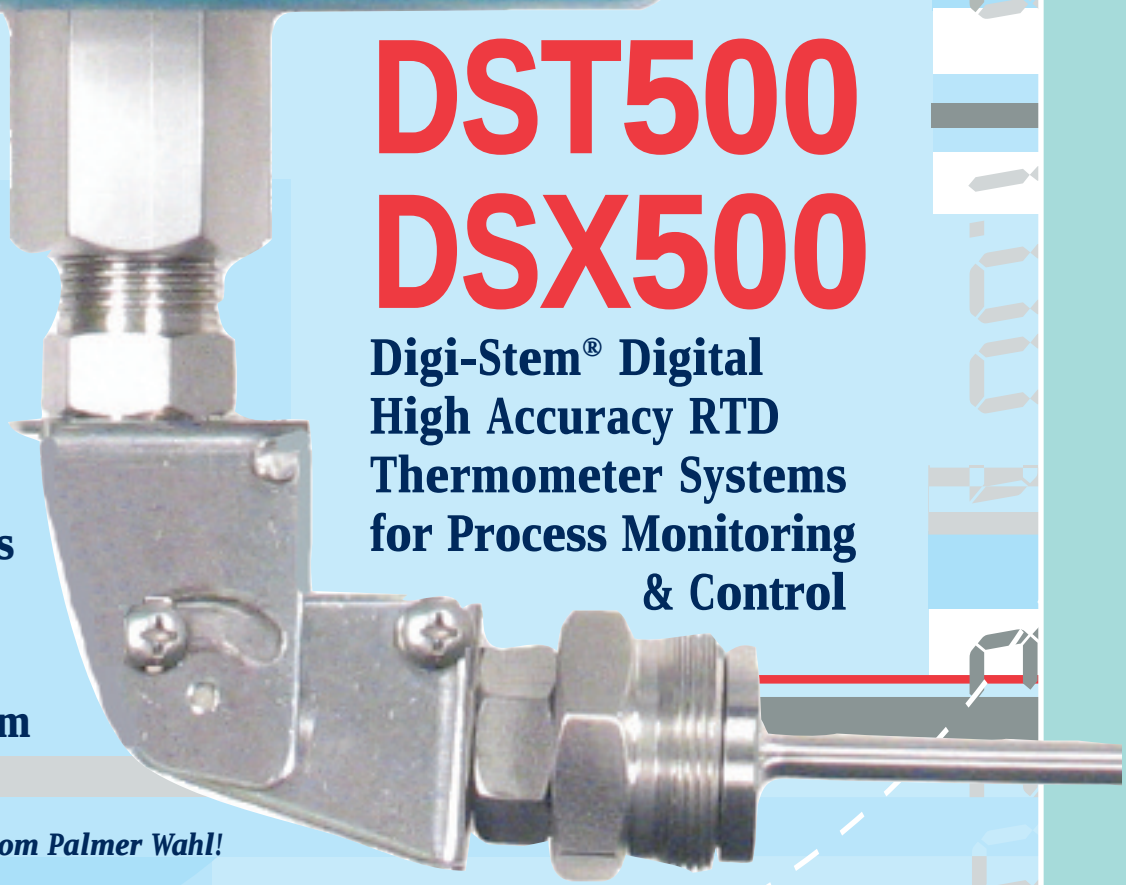
Actual Size

NEW!

DST500
DSX500

Digi-Stem® Digital High Accuracy RTD Thermometer Systems for Process Monitoring & Control

- Accurate
- Reliable
- Low Ambient Temperature Coefficient
- Rigid & Remote Sensors for Industrial Process
- Temperature Indicators & Transmitter System



Another Innovation from Palmer Wahl!

PALMER Wahl
INSTRUMENTATION GROUP

www.palmerwahl.com

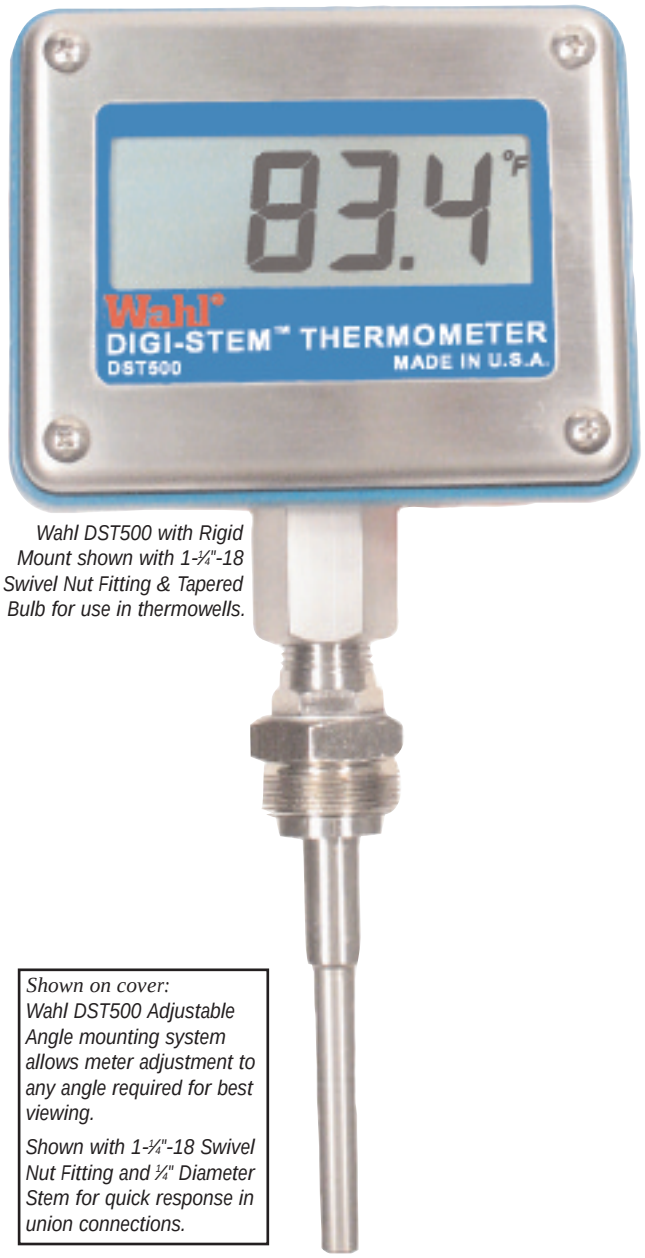
172 Years of Continued Innovation
ISO 9001:2000 CERTIFIED

PW1202

10/08

Wahl® DST500 DSX500

Key Features and Benefits



Wahl DST500 with Rigid Mount shown with 1-¼"-18 Swivel Nut Fitting & Tapered Bulb for use in thermowells.

Shown on cover:
Wahl DST500 Adjustable Angle mounting system allows meter adjustment to any angle required for best viewing.

Shown with 1-¼"-18 Swivel Nut Fitting and ¼" Diameter Stem for quick response in union connections.

Wahl's NEW! DST500 and DSX500 Series Digital RTD Thermometer Systems are wide range, high accuracy thermometers designed for many applications where accurate and reliable temperature monitoring and recording are important.

- **DST500 - Meter with Local Display**
- **DSX500 - Meter with Local Display and 4-20mA Transmitter**
- **Exclusive Adjustable Meter Display Update Rate**
- **User Selectable °F or °C**
- **Ambient operation from -40°F to 158°F (-40° to 70°C)**
- **Field Replaceable Battery, Long Life - 2 years nominal**
- **Adjustable Angle, Rigid, or Remote configurations available**
- **Programmable "RØ" for "matching" sensor to meter**
- **User friendly Single Point Software Calibration**
- **Tamper Resistant - all adjustments require software**
- **Exclusive Quick Disconnect Connector option on Remote Cables**
- **1" High Display readable from 30 feet away**
- **Optional Adjustable Display Mount for easy reading angle**

DST500

The Wahl DST500 Temperature Indicator System offers the highest precision temperature measurement technology - making it a great choice for your processing needs. It features a 1" high LCD display - readable from 30 feet away! The DST500 also includes a field replaceable battery with a 2 year operational life, and is available in a variety of probe configurations including MIG standard tapered bulb for direct drop-in MIG replacement. The Adjustable Angle probe option allows easy adjustment of the display for the best viewing option.

DSX500

The Wahl DSX500 Temperature Indicator and Transmitter System includes the same features as the DST500, but is loop powered from an integral, 4-20 mA transmitter, for reliable data transmission. The DSX500 Transmitter is factory configurable to your specification, or user configurable with the optional DSTPROG software kit.

Another Innovation - from Palmer Wahl!

Applications

- **Dairy & Food Processors**
- **USDA**
- **Pharmaceutical Companies**
- **Refineries and Energy Processors**
- **All Temperature Critical Applications**

MADE IN THE USA

TWO YEAR 2 WARRANTY

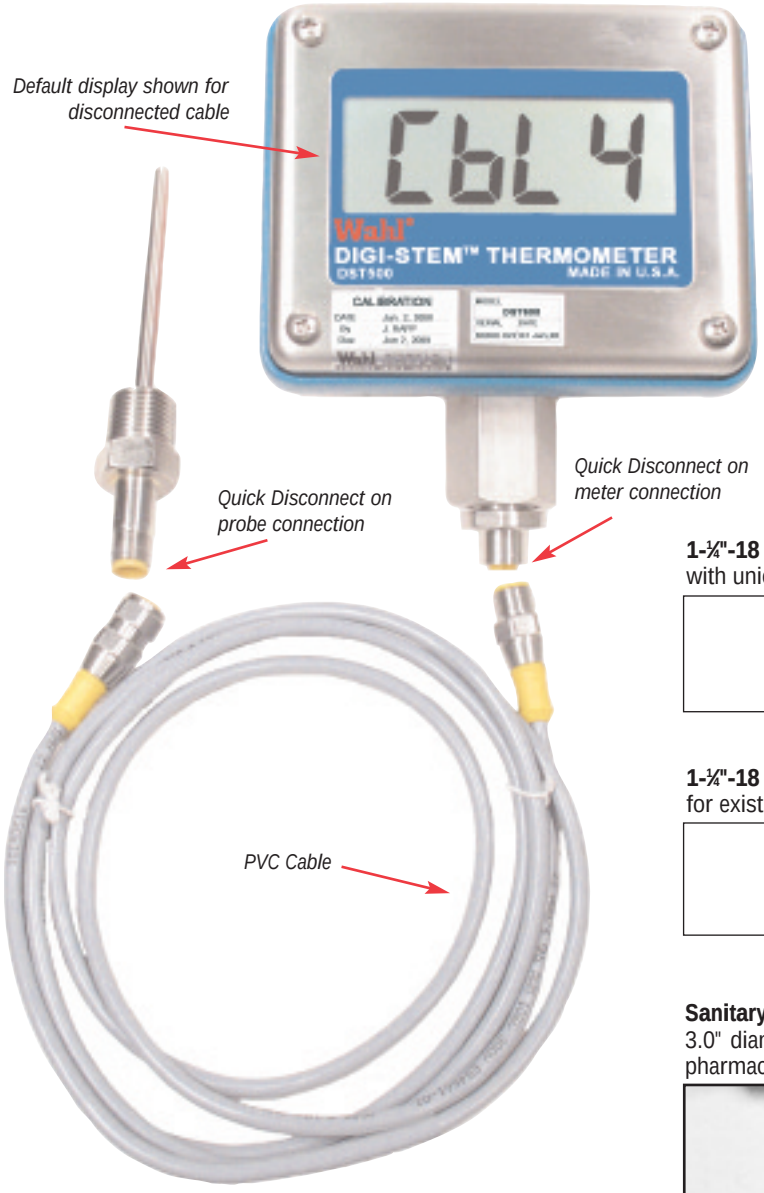
Complete Calibration Services Available

PALMER Wahl INSTRUMENTATION GROUP
172 Years of Continued Innovation
ISO9001:2000 CERTIFIED

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

Probe Selection and Measurement

Wahl®
DST500
DSX500

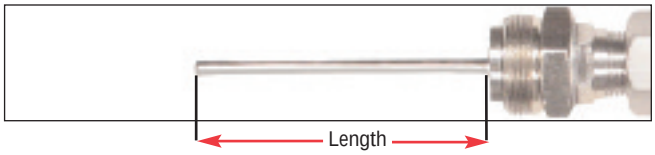


Optional Quick Disconnect for Calibration Convenience

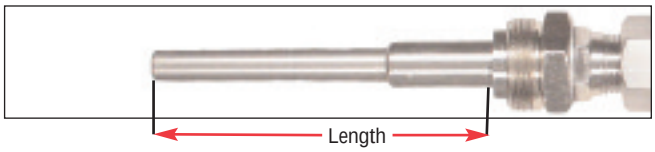
Optional Quick Disconnect for both probe and meter connections offers convenient calibration for the user. This industry leading, and time saving capability allows the probe and meter to be removed and taken to the calibration lab and calibrated as a system - *without removing the permanently installed cable*.

Custom Built Probes available.
Call Customer Service for information.

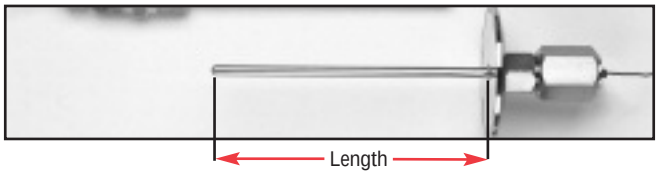
1-¼"-18 Swivel Nut Fitting with 1/4" Diameter Stem - for use with union connections (no thermowells) for quick response.



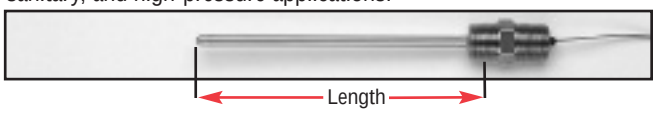
1-¼"-18 Swivel Nut Fitting & Tapered Bulb - Direct replacement for existing MIG's.



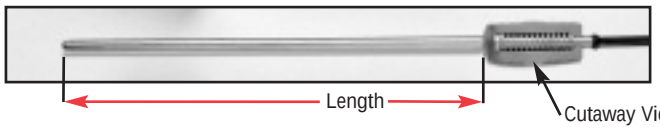
Sanitary Probe: Authorized 3-A Sanitary Standard 74-03 for 1.5" to 3.0" diameter tube sizes with tri-clamp fitting for milk, food and pharmaceutical processing.



***Brazed Probe:** For use in thermowells, or low pressure applications.
***Welded Probe:** Sealed for immersion in fluids; for use in thermowells, sanitary, and high-pressure applications.



Spring Loaded Probe: Maintains a positive force against the bottom of thermowells; not for direct immersion in fluids; assembly is not sealed. Allows approximately 1 inch of travel.



Why Calibration is important for your Instruments

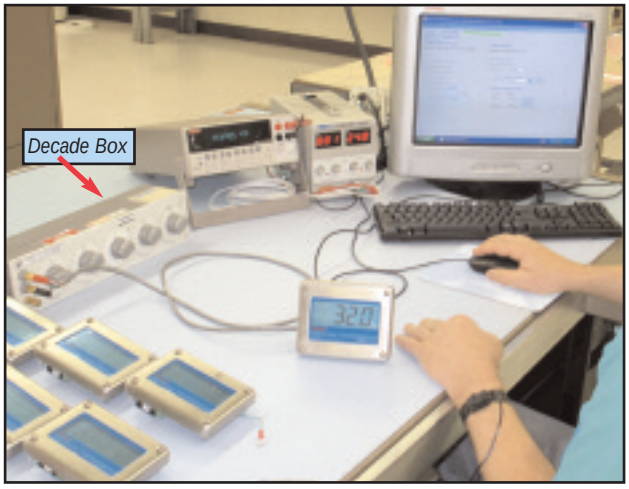
- **Product Safety and Compliance.**
- **Increase customer satisfaction with consistent products.**
- **Ensure traceability throughout entire manufacturing process by maintaining accuracy records.**
- **Register your product for our Calibration eMinder Service to be reminded when calibration is due. Go to: www.palmerwahl.com/register**

MADE IN THE USA · TWO YEAR 2 WARRANTY · A3 · CE

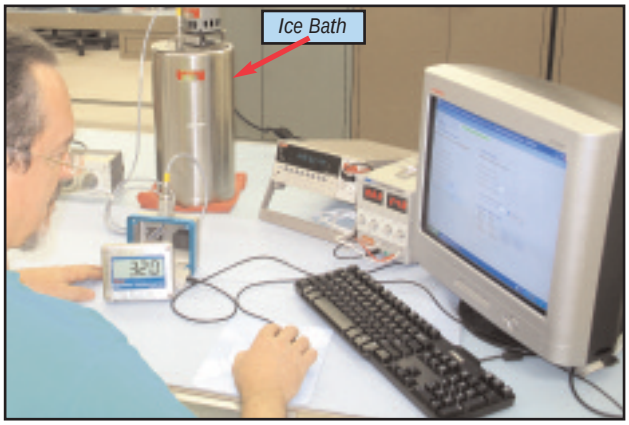
Complete Calibration Services Available

***Note:** some connections include 1/2" of threads when measuring probe length. Contact Customer Service for information.

Calibration and Programming Software and Accessories



Meter Calibration of a Digi-Stem Meter utilizing a decade box and DST/USB Interface Module.



System Calibration of a Remote Digi-Stem utilizing an ice bath and DST/USB Interface Module.

Wahl **DSTPROG** and **DSTCAL Software Kits** are user friendly and include on-screen prompts for guiding the user through their operation. Both Kits require Windows XP to operate, and include a USB cable, DST/USB Interface Module, and Digi-Stem Serial Interface Cable in order to connect the Wahl DST & DSX500 to a PC.

Wahl DST/USB Interface Module, USB Cable, and Digi-Stem Serial Interface Cable

Probe RØ

Probe RØ - The Wahl DST500 & DSX500 include an exclusive compensation feature utilizing a programmable RØ calibration coefficient for increased accuracy. This allows the meter and probe to be "matched" to each other, and guarantees an accurate system.

DST/DSX500 Programming Software

DSTPROG Programming Software Kit - This software allows the customer to configure the following parameters:

- **Sample/Display Rate** - Factory default at 1/second. Adjustable from .25 seconds to 10 seconds in .25 second intervals. Slower update rates extend battery life.
- **Probe RØ** - Compensation feature which allows calibration of meter to be "matched" to probe.
- **Current Transmitter Programming** - Allows assignment of 4-mA and 20-mA values in °F or °C.
- **Burnout Setting** - controls current direction in event of open probe. Upscale drives to 22.0-mA and Downscale drives to 3.5-mA.

DST500 Calibration Software

DSTCAL Calibration Software Kit - This exclusive software allows setting of the same configuration parameters as DSTPROG, but also allows the following calibrations:

- **Meter Calibration** - uses fixed resistances to calibrate the resistance measurement electronics by connecting to known fixed resistances.
- **System Calibration** - used to calibrate a sensor to a meter using a standard ice bath.

Software Accessories

DST500/DSX500 Fixed Probe Calibration Cable Assembly - 13500-03 Extends the probe leads when performing system calibrations on fixed probe systems. Allows the meter to be conveniently placed on the benchtop, while the probe is installed in an ice bath.

DST500/DSX500 Interconnect Calibration Cable - When probe wiring is difficult to remove, simply disconnect the probe and meter from the cable, and use the 2 meter interconnect cable for performing lab calibration.

12360-002 - 4 Conductor

MADE IN THE USA · TWO YEAR 2 WARRANTY · A3 · CE

PALMER Wahl INSTRUMENTATION GROUP

172 Years of Continued Innovation
ISO9001:2000 CERTIFIED

Complete Calibration Services Available

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

Meter Specifications and Accessories

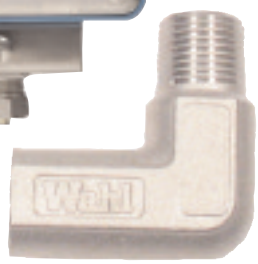
Wahl® DST500 DSX500

DST500 & DSX500 RTD Meter Specifications		
Model	**DST500**	**DSX500**
	Meter with Local Display	Meter with Local Display and 4-20mA Transmitter
Meter Range	-328° to 1472°F (-200° to 800°C)	
Scale	User Selectable for °F or °C	
Meter Accuracy	± 0.1°F/C, over 1-year period (@ Tamb = 23°C ± 5°C)	
System Accuracy	Greater of ± 0.3°F / 0.2°C or ± 0.1% of reading, over 1-year period (@ Tamb = 23°C)	
Display	1.0" 4-digit LCD display with icons for °F, °C and Low Battery	1.0" 4-digit LCD display with icons for °F and °C
Display Resolution	0.1°F/C. 1°F above 999.9°F	
Sample/Display Rate	1/second standard, adjustable in .25 second intervals from .25 to 10 seconds	
Ambient Operating Environment	-40° to 158°F (-40° to 70°C), 10% to 100% RH non-condensing Vibration - MIL STD 202G	
Ambient Temperature Coefficient	Maximum of 0.003°/°C over Ambient Operating Temperature Range from 23°C ± 5°C	
Enclosure	Stainless Steel and Polycarbonate (NEMA 4X), Weight: 2 lbs. (1kg) Dimensions: 5.3" W x 4.3" H x 2.7" D (13.5 x 10.9 x 6.9 cm).	
Sensor/Probe	• Sensor - 4-wire RTD, RØ = 100Ω, Alpha = .00385 Ω/Ω/°C • 304 or 316 Stainless Steel Probe construction • Fixed Stem Probes or Remote probes with rugged IP68 connection system	
CE Approval	Yes	CE approved with loop power cable installed indoors and < 30m
Battery / Power Supply	One Lithium Thionyl Chloride "C" battery	Loop Powered 10-36VDC
Battery Life	2 years nominal at 1 second update interval	N/A
4-20mA Output	No	Yes
Output Accuracy	N/A	± 0.2°F/0.1°C
Output Scaling	N/A	Factory or user programmable with DST Software Kit
Output Connection	N/A	1/2" NPT Female

DST500/DSX500 Software and Accessories	
DSTCAL	DST500/DSX500 Calibration Software Kit
DSTPROG	DST500/DSX500 Programming Software Kit
12360-002	DST500/DSX500 Interconnect Calibration Cable
13500-03	DST500/DSX500 Fixed Probe Calibration Assembly
DST500/DSX500 Meter Accessories and NIST Traceable Certificate of Calibration	
DSA3030	Wall Mount Bracket (for Remote Mount units)
DSA3031	Wall Mount Bracket (for Remote Mount units) with Grounding Lug
DSA3060	Spare Lithium Thionyl Chloride "C" Battery
DST5NIST	NIST Traceable Certificate of Calibration - Standard Set Test Points (Subsequent NIST)
DST5NIST-1	NIST Traceable Certificate of Calibration - User Specified Test Points
13146	90 Degree Elbow for Fixed units, Specify "B" Back Angle, "L" Left Angle, "R" Right Angle

Specifications subject to change

DSA3030 Wall Mount Bracket



13146 90° Elbow

MADE IN THE USA

TWO YEAR 2 WARRANTY

Complete Calibration Services Available

WAHL DST500 & DSX500 METER & PROBE ORDERING GUIDE

Code	Step 1 - order DST500 or DSX500 RTD Meter
DST500	Digi-Stem RTD Meter, LCD, Battery Operated, (NIST Certificate and Battery included) -328° to 1472°F (-200° to 800°C)
DSX500	Digi-Stem RTD Meter, LCD, 4-20mA Transmitter, (NIST Certificate included) -328° to 1472°F (-200° to 800°C)

Code	Step 2 - order DST500 or DSX500 RTD Probe by inserting correct codes for desired probe in white boxes at bottom of form.
DST5	DST/DSX500 RTD Probe

Code	Process Connections
01	1/2" NPT Fitting
02	3/4" NPT Fitting
03	1-1/2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
04	2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
05	2-1/2" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
06	3" Diameter - 3-A Sanitary Standard 74-03; Stem Type Code "2", Welded only; Material 2, 316L SS - 450°F only
07	1-1/4" x 18 NEF2 Swivel Nut Fitting

Code	Mounting Style
A	Adjustable Angle (Pictured on cover, not available on Remote Stems)
B	Rigid (Pictured on pg 2, Bottom Connected)
C	Remote (Pictured on pg 3, Mounting Bracket not included - see Options pg 5)

Code	Stem Type
0	Not Applicable
1	Brazed
2	Welded
3	Spring Loaded, Process Connection Codes "01" & "02" only. Stem Tip Diameter Code "1" only. Allows approx 1.0" Spring Travel.

Code	Stem Material/Construction
1	304 SS, Temperature Rating, 450°F (232°C)
2	316L SS, Temperature Rating, 450°F (232°C)
3	304 SS, High Temperature Rating, 1472°F (800°C)
4	316L SS, High Temperature Rating, 1472°F (800°C)

Code	Stem Diameter
1	1/4" Diameter
2	3/8" Diameter
3	5/8" Diameter Stem, 7/16" Tapered Bulb (Process Connection "07", Stem Type "0", Stem Lengths: 3.5", 6", 8", 9", 12"only)

Code	Stem Lengths (Specify exact length desired)
01X-72X	1" to 72" Length in inches - 01X = 1 inch, 02X = 2 inch, 03X = 3 inch, etc. For fractional lengths substitute X with: A = 1/4", B = 1/2", C = 3/4", Example: 04A = 4-1/4".

Stop here if ordering Adjustable Angle or Rigid Probe.

If ordering a Remote Probe continue with options below.

Code	Meter Connection - where cable attaches to Digi-Stem Meter
1	Fixed(Cable attached to meter via 1/2" NPT fitting, must disconnect from PCB to separate from meter)
2	Quick Disconnect (Cable attached via IP68 rated TURCK plug & receptacle)

Code	Cable Type
1	PVC, Temperature Rating 105°C

Code	Cable Length
002	2 meters (6.5 feet)
004	4 meters (13.1 feet)
006	6 meters (19.7 feet)
008	8 meters (26.3 feet)
010	10 meters (32.8 feet)
011-200	011 = 11 meters, etc. (Specify exact length desired up to 200 meters)

Code	Probe Connection - point where cable attaches to probe fitting
1	Fixed (Cable permanently attached to probes process fitting)
2	Quick Disconnect (Cable attached via IP68 rated TURCK plug/receptacle)

Insert Model Number Code in white boxes below to construct Part Number for specific probe desired

Adjustable Angle and Rigid Probe Ordering Information

Remote Probe Ordering Information

DST5											**Step 3 - order Software and Meter Accessories. Call Customer Service, or see Price List/Order Form for help.**